Appl. No.

: 10/573,437

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AMENDMENTS TO THE CLAIMS

1-7. (Canceled)

8. (New) An explosive attachment device for mechanical connections of

components, internally equipped with an explosive charge, the detonation shock effect of which

is strong enough for rupturing a connection forming part of the attachment device for a rapid

disconnection, said attachment device comprising:

an attachment screw having a head, which extends through and interconnects the

components;

an explosive attachment element adapted to receive the attachment screw, such that the

interconnected components are clamped between the head of the attachment screw and the

explosive attachment element;

wherein the explosive attachment element comprises a cylinder having a cover which

engages one of the interconnected components, and a piston mounted in the cylinder, said piston

having substantially the same outer diameter as an inner diameter of the cylinder, and said piston

being arranged inside the cylinder such that there is a substantial space between the piston and

the top and bottom of the cylinder, whereby in the space between the piston and the bottom of the

cylinder there is provided a circular row of small holes in the wall of the cylinder at a distance

from the bottom of the cylinder which is at least equal to the height of the piston at its biggest

diameter;

the piston also having a rod with a substantially smaller diameter than the inner diameter

of the cylinder, the rod extending in parallel to the longitudinal mean axis of the cylinder-through

the cover, such that the attachment screw can be fixedly mounted in the rod; and

an explosive charge located in the cylinder in the space between the piston and the cover,

the explosive charge having a firing device which is equipped with a delay mechanism, whereby

the attachment device, after a time delay, is exploded in such a manner that the blasting pressure

is converted to a pulling stress, which pulls off the attachment screw without splintering the

remaining part of the device.

9. (New) The explosive attachment device of Claim 1, wherein the delay

mechanism comprises a blasting fuse equipped with two igniting fuses, one positioned at each

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end of the blasting fuse, and an electric cable connected to one of the igniting fuses, said blasting fuse being positioned in the space between the piston and the bottom of the cylinder and where the end of the blasting fuse having the igniting fuse which is not connected to the electric cable extends through a hole in the piston, such that the other igniting fuse will be in contact with the explosive charge.

- 10. (New) The explosive attachment device if Claim 1, wherein the cover further comprises a collar having a thread arranged on its inner side, such that the cylinder will not reach the bottom of the cover but the edge of the cylinder forms a threshold in the inner wall of the closed space.
- (New) The explosive attachment device of Claim 1, wherein the cylinder further comprises a round locking washer, the outer diameter of which is substantially as big as the inner diameter of the cover, but is substantially bigger than the inner diameter of the cylinder, said locking washer having a central hole, the diameter of which is somewhat bigger than the diameter of the rod, but substantially smaller than a collar arranged on the rod, said locking washer being fixedly mounted such that the rod extends through the central hole in the locking washer and is clamped in position against the collar of the rod by means of the piston, and wherein the piston has an outer diameter which at the locking washer is substantially smaller than the inner diameter of the cylinder, forming a substantial space between the locking washer and a portion of the piston.
- 12. (New) The explosive attachment device of Claim 1, wherein the attachment screw further comprises a washer positioned below the head of the attachment screw, and wherein the washer functions as a shearing tool.
- 13. (New) The explosive attachment device of Claim 2, wherein the blasting fuse is wound in spiral form in the cylinder in the space between the piston and the bottom of the cylinder.
- 14. (New) The explosive attachment device of Claim 11, wherein portions of the rod, the locking washer, and the cylinder are adapted to prevent rotation of the piston and rod relative to each other.